

LIS007897162B2

(12) United States Patent

Gupta et al.

(54) ARTHROPOD REPELLENT
PHARMACOPHORE MODELS, COMPOUNDS
IDENTIFIED AS FITTING THE
PHARMACOPHORE MODELS, AND
METHODS OF MAKING AND USING
THEREOF

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(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 26 days.

(21) Appl. No.: 12/343,562

(22) Filed: Dec. 24, 2008

(65) Prior Publication Data

US 2009/0196838 A1 Aug. 6, 2009

Related U.S. Application Data

- (62) Division of application No. 10/701,565, filed on Nov. 6, 2003, now Pat. No. 7,498,331.
- (51) Int. Cl. A01N 25/08 (2006.01)

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(10) Patent No.: US 7. (45) Date of Patent:

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Mar. 1, 2011

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(57) ABSTRACT

Disclosed herein is a pharmacophore model for arthropod repellent activity and methods of making and using thereof. The pharmacophore comprises two hydrophobic aliphatic functions, one aromatic function and one hydrogen bond acceptor function. The pharmacophore model was made using a test set of arthropod repellent compounds. Also disclosed are arthropod repellent compounds identified by screening databases with the pharmacophore model. Also disclosed are methods of repelling arthropods from a surface or area. Compositions and formulations comprising the compounds of the present invention as well as objects having the compounds of the present invention are disclosed.

5 Claims, 7 Drawing Sheets

